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FOODS, 1

U. E. CALMA

FOODS

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by

URSULA E. CALMA

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FOREWORD

This book has been prepared to help lighten the teacher's work as well as to help high school students of home economics in studying their lessons well.

Most often home economics students are handicapped in the preparation of their class work because of the inadequacy of references available in the school library. It is, therefore, the aim of the author to offer this humble book to assist these students.

The author expresses grateful acknowledgment to all those whose books and writings were used as references in the preparation of this publication, including the Bureau of Public Schools for its course of study.

THE AUTHOR

FOODS I

Unit I

THE KITCHEN AND ITS EQUIPMENT FOR FOOD PREPARATION

A kitchen is a workshop where food is cared for, prepared, cooked and served. It should be attractive, sanitary, well-ventilated, well-lighted, cheerful, and should be arranged to conserve time and energy. The storage and preparation center, the cooking center and the washing center should be conveniently arranged to carry on the work efficiently. The essential kitchen equipments include range, sink, work surfaces, refrigerator and storage units for food, utensils, dishes and silver, cleaning equipment and materials. The ideal sequence of facilities are refrigerator for storage of perishables; cabinet for dry foods; working surfaces for food preparation and close at hand, storage of kitchen utensils; the range; the sink; the work table for serving, with storage units for dishes and silverware; and the cabinet for cleaning materials.

In a well-arranged kitchen, the equipment are so placed that one saves steps and energy. A kitchen is step-saving when each utensil is placed where it will be used most often. Utensils needed in the preparation of food such as chopping board, mortar and pestle should be grouped together in the preparation center; while those needed in cooking, such as pots, carajay, turner and basting spoon, should be placed in the cooking center, and those equipment used in washing should be grouped in the washing center. To be able to do your work neatly, quickly and easily, provide "a place for everything and everything in its proper place." Large pieces should be placed on shelves within easy reach and the small pieces should be placed in front of the large ones. There should be a supply of cooking utensils of the right kind to meet any need. Select equipment that are durable, without grooves, crevices or corners that will be hard to clean, of good quality, and of a size that suits the amount of food needed by the family.

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Kitchen utensils are made from various materials—aluminum, enamel, tin, cast iron, stainless steel, wood, glass like pyrex, and earth.

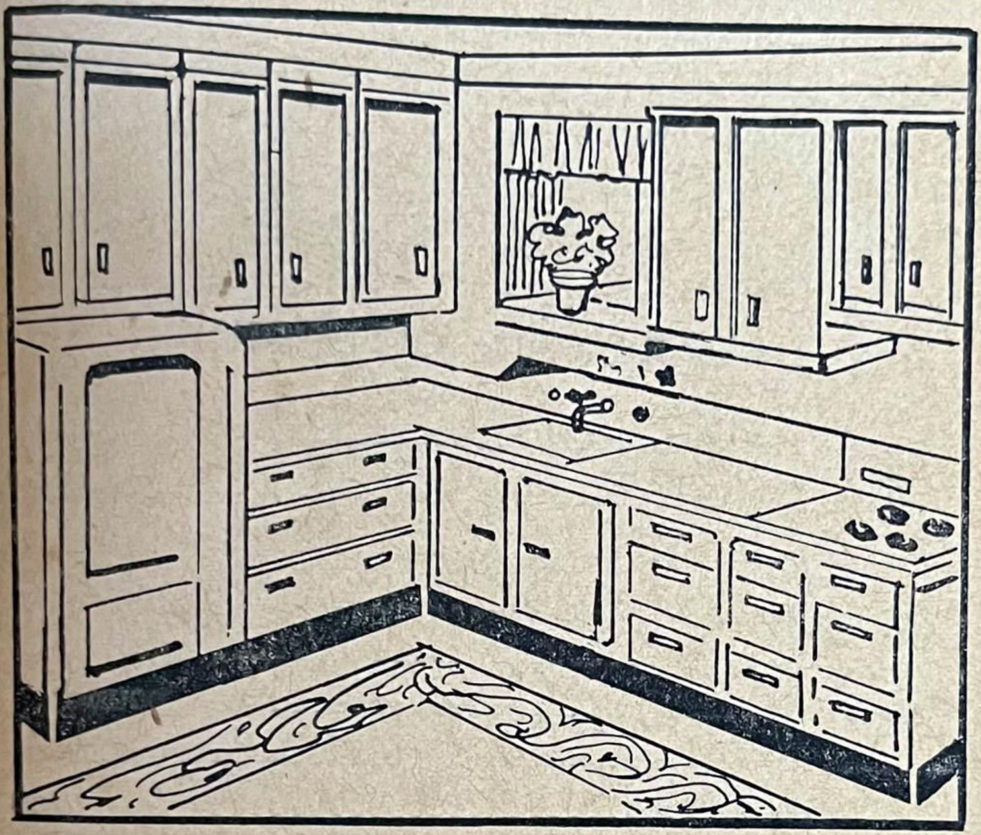
The following is a list of kitchen equipment:

1. Knives (paring, bread, butcher knife)
2. Chopping board
3. Cleaver
4. Sieves (coarse and fine)
5. Colander or vegetable strainer
6. Mortar and pestle
7. Egg beater
8. Grater
9. Set of mixing bowls
10. Rubber scraper
11. Measuring cup and spoons
12. Spatula
13. Flour sifter
14. Can opener
15. Knife sharpener
16. Sauce pans
17. Frying pans
18. Carajay
19. Kettle
20. Double-boiler
21. Basting spoon
22. Turner
23. Soup ladle
24. Cake and muffin pans
25. Pie plate
26. Custard cups
27. Biscuit and doughnut cutter
28. Jelly molder
29. Scissors
30. Copper vat (*tacho*)
31. Stove
32. Fire tongs

CARE OF KITCHEN EQUIPMENT

Any kitchen equipment will last long if given proper care. The stove, sink and cabinets should be given special care. The garbage can should be emptied often and kept covered. Small equipment such as paring and butcher knives, kettles, pots, and carajay, should receive regular routine care; wash and wipe a knife or can opener after using. Warm water will facilitate removing of grease; rice washing (*hugas-bigas*) helps too. Very fine ash will help brighten dishes and pans. Be sure to dry them before storing; moist utensils will attract cockroaches and shelves will develop a disagreeable odor.

Hand towels should be used for wiping the hands only. Dish towels and cloth used for wiping tops of tables should be used exclusively for their particular purpose. Wash and change towels every day or whenever necessary.



A Modern and Efficient Kitchen

1. The refrigerator, cabinet for dry foods and the adjacent working surfaces form the storage and preparation center.
2. The sink, storage units for dishes and silverware and the cabinet for cleaning materials form the cleaning and washing center.
3. The range and the storage for kitchen utensils form the cooking center.

TABLE OF MEASURES AND WEIGHTS USED IN FOOD PREPARATION

3 teaspoons	1 tablespoon
4 tablespoons	1/4 cup
8 tablespoons	1/2 cup

12 tablespoons	3/4 cup
16 tablespoons	1 cup
2 cups	1 pint
4 cups	1 quart
4 quarts	1 gallon
16 ounces	1 pound
2 cups butter	1 pound
2 1/4 cups granulated sugar	1 pound
2 3/4 cups brown sugar	1 pound
4 cups flour	1 pound

TABLE OF ABBREVIATIONS

tsp.	teaspoon
tbsp. or T.	tablespoon
C.	cup
pt.	pint
gal.	gallon
lb.	pound
oz.	ounce
f.g.	few grains
min.	minute
hr.	hour

GENERAL RULES TO FOLLOW IN ORDER TO WORK EFFICIENTLY

1. Provide a definite place for everything and put everything in its place.
2. Pot holders are needed in the kitchen. Hang them conveniently.
3. Dish towels should be used for dishes only, never for the hands. Hand towels are for the hands only.
4. Dining room dishes belong to the dining table; do not use them in the kitchen. Use an equipment for what it is intended.
5. Use a spoon to taste food. Avoid returning the spoon to cooking mixture unless it is washed.
6. Use as few utensils as possible to save washing.

7. Work on a small area as much as possible to save steps and energy.
8. Avoid spilling and splashing.
9. Keep surplus food immediately after using.
10. If an equipment is not to be used again soon, wash and dry it and return to its proper place. For example, an egg beater should be washed and kept instead of waiting until the end of the meal.
11. Concentrate on your work; avoid overflowing or burning of foods.
12. Control the use of fuel, electricity and soap. It saves money
13. Clean as you work. Soak pans when empty.
14. Keep the sink free of pots, pans and dishes. It is a work space.
15. Leave the kitchen clean — the sink, stove, working surface, floor.

SUGGESTIONS FOR DISH WASHING

1. Scrape all grease and particles of food from dishes and utensils. Rice washing or *hugas-bigas* can be used without the use of soap to remove the bits of food left on the dishes. (These can be used for pig's feed).
2. Pile like dishes and utensils in the order to be washed.
3. Place the dishes in a convenient place for the person washing them.
4. Soak dishes and cooking utensils as soon as food is removed from them. Use:
    a. Hot water for "sugary" dishes
    b. Lukewarm water for proteins.
    c. Cold water for starchy food.
    d. Hot water for fats.
5. Use warm soapy water.
6. Wash in this order: glassware, silverware, china, greasy dishes and utensils.
7. Rinse thoroughly with hot water.
8. Allow china and glassware to dry in the dish rack.

9. Dry the silverware and utensils thoroughly with a towel.
10. Wash the sink, drain board and dish cloth.
11. Hang the dish cloth and towels to dry.
12. Put all the dishes, utensils, equipment and supplies in their proper places.

REVIEW

1. Describe an efficient kitchen.
2. Be able to identify the kitchen equipment available in your home or school.
3. Discuss how to work efficiently in the kitchen.
4. Explain how to wash dishes well.

Unit II

WISE SELECTION OF FOOD

THE IMPORTANCE OF CAREFUL SELECTION AND CARE OF FOOD

The foundation of health and happiness depends on the wise selection of food. It has been claimed and experimented that there is a definite relationship between good food and good looks. Careful selection of food is essential to good health, the proper functioning of the body and the pleasure and physical attraction or satisfaction derived from it. One who is nourished with the proper kind and amount of food is generally healthy-looking. He has a clear skin, glossy hair, sound teeth, good appetite, calm nerves, feels and looks younger and full of life and vigor. Certain foods help prevent illnesses, such as scurvy, rickets and beri-beri. Generally speaking, the right choice of food improves one's looks, prevents illness and keeps him well.

NUTRITIVE VALUE OF THE FOOD GROUPS

The human body may be compared to an engine. The engine must have fuel to make it go, so must the body have fuel in the form of food to keep it going. The engine runs when the fuel burns. Food is burned in our bodies but in a different way. Parts of the engine wear out and must be replaced, our body wear out and the food we eat replaces and repairs the worn-out tissues. As lubricant is to the engine, so are body regulators to the body.

Food is any material which when taken in the body is digested, absorbed and used to build and repair tissues; it gives heat and energy and regulates body processes. Food is essential to maintain good health. The important functions of food are:

1. *Build and repair body tissues.* — To build muscles, bones, and body tissues, materials must be furnished by food in the form of protein. The greatest demand for building is during the rapid growth of an individual but food is essential at all ages both for repair and building.

2. *Source of heat and energy.* — Energy is needed to keep the body alive and maintain internal functions, such as the beating of the heart, breathing, and circulation of the blood. Energy is necessary for physical activity; heat is furnished to keep the body warm. Carbohydrates and fats give heat and energy to the body.
3. *Regulate body processes.* — Minerals and vitamins help in keeping the smooth functioning of internal processes. Calcium helps in controlling the heart beat.

FOOD NUTRIENTS OR THE FOOD GROUPS

1. Protein Foods

The living cells of the body are composed of protein, without which they can not exist. The hair, nails, skin and muscle tissue contain protein. A generous amount of protein should be included in the diet during the entire period of growth. Proteins are made up of substances called amino acids. There are two kinds of proteins — complete and incomplete. Complete proteins are those which support both growth and repair; while incomplete proteins lack some essentials to produce growth in the body but can maintain life. Incomplete proteins are valuable but they are not as important as complete proteins. The protein of milk and eggs has the highest value, while protein found in glandular organs as liver, kidney and pancreas ranks second. They contain the essential amino acids necessary for normal growth and development. Meat from beef or chops contain less amino acids than glandular meat. Milk, eggs, meat, and fish are of great value to the body. Proteins from nuts, soy beans, and wheat (especially the wheat germ) are complete. Other vegetables such as peas, corn, and lima beans have incomplete proteins.

2. Carbohydrates

The amount of energy foods needed by the body varies with the size of the body and physical activity. Carbohydrates are found in sugars and starchy foods like rice, corn bread, dried peas, beans, sweets such as candies, preserves and sugar.

3. Fats

Fats are extracted from the protein and carbohydrates of plants or animals. Fats are a more concentrated source of heat and energy. Animal fat sources are butter, cheese, cream, egg yolk, fat of fish, meats and lard. [illegible] fat sources are almonds, avocados, chocolate, corn oil and peanuts.

4. Minerals and Vitamins

The substances which regulate body processes and keep the body in good condition to protect us from diseases may be compared to the lubricant or oil used in an automobile. These foods which "keep us growing and going" are chiefly the minerals and vitamins. Water is also considered as a body regulator. Minerals and vitamins along with the other nutrients help us grow, keep the body well and resist infections, give us appetite, develop and maintain good teeth and bones, keep the eyes in good condition, keep the skin and the mucous membranes healthy, make the stomach and intestines function as they should, and keep the nerves and glands working normally.

To insure an adequate supply of minerals, include in the daily diet a liberal amount of foods rich in each of the important minerals: calcium, iron and phosphorus.

Foods rich in calcium — milk, cheese, eggs, leafy green vegetables, carrots, soybeans, oysters, crab, clams, *balut*.

Foods rich in iron — egg yolk, glandular organs (liver, heart, kidney), oysters, shrimp, beans, whole-grain cereals.

Foods rich in phosphorus — milk, cheese, egg yolk, poultry meat, whole-grain cereals, fish.

Iodine is found in sea foods, fruits, vegetables and grains grown in soil containing iodine.

Phosphorus forms a part of every cell of the body, together with calcium, and helps give rigidity to the bones and teeth.

Iron is an important element in the structure of the body. It is formed in the red corpuscles of the blood. It is needed in the bringing of oxygen to the cells and, hence, to the burning of fuel foods.

Calcium is essential for the building of strong bones and teeth. Together with phosphorus, it is the chief element of bones and teeth.

WHAT VITAMINS DO TO THE BODY

Vitamin A	*Sources*
1. Improves resistance to disease, especially colds and diseases of the respi-	Butter, cream, milk, egg yolk, green and leafy vegetables (camote tops, saluyot, malungay, tali-

ratory tract 2. Promotes growth 3. Protects against night-blindness	num, ampa[illegible] tops, kinchay), yellow foods (ripe papaya, yellow corn and camote, carrots, yellow squash).
Vitamin B_1 (Thiamin)	
1. Improves appetite 2. Promotes good digestion 3. Prevents constipation 4. Prevents beriberi 5. Essential for the health of the nerves	Whole-grain cereals, beans from all sources, yeast, nuts.
Vitamin C (Ascorbic Acid)	
1. Improves resistance to infection 2. Helps produce good teeth 3. Essential to growth and to blood cells 4. Prevents scurvy	Tomatoes, pepper, guavas, cashew, balimbing (carambola), citrus fruits (calamansi, oranges, suha).
Vitamin D (Antirachitic)	
1. Necessary for bone and tooth development 2. Prevents rickets	Egg yolk, liver oil, irradiated foods.
Vitamin E	
1. Necessary for reproduction	Wheat germ, corn, peanut oil, green leaves.
Vitamin G (B_2) (Riboflavin)	
1. Promotes general health 2. Prolongs active life span	Cream, cheese, milk, leafy vegetables, liver, kidney, heart, soy beans, legumes.
Niacin (Nicotinic Acid)	
1. Promotes health, growth, normal function of digestive tract 2. Prevents pellagra	Liver, lean meat, yeast, wheat germ; milk.

Vitamin R (Anti-hemorrhagic)

1. Prevents hemorrhage	Green vegetables, egg yolk, liver, rice bran, cabbage.

REVIEW

1. Discuss the value of wise selection of food.
2. What is food?
3. Make a comparison between the human body and an engine.
4. What can food do to the body?
5. Differentiate complete from incomplete proteins.
6. Give the importance of the food groups and give examples of sources of each.

Unit III

SCHOOL LUNCHES

RECESS

Recess is a period during which a small amount of food is eaten. It is something in addition to a good breakfast, not in place of it. Breakfast should be a larger meal than the recess. The recess lunch should be light and need not consist of more than one food such as milk, a fruit, a young ear of yellow-boiled or roasted corn or boiled camote. Cheap simple food is the best.

Kinds of Food Suitable for Recess Lunch

1. Mongo or beans with milk
2. Fruits (ripe and fresh) — orange, banana, chico, pomelo, atis, avocado, papaya, any fruit in season.
3. Boiled camote, cassava, gabi or other roots, young corn
4. Eggs (hard- or soft-boiled)
5. Milk and milk preparation
6. Peanuts
7. Guinatan

Foods not Suitable for Recess

1. Candies
2. Ice drops, soft drinks, chewing gum
3. Cakes (they are expensive)
4. Coffee

MIDDAY SCHOOL LUNCH

Many of the boys and girls eat lunch at school and it is important that they should eat the right foods — foods which are easily digested and clean, and furnish the body with the necessary nutrients.

Whether you choose your lunch at the school cafeteria or at a nearby store or you bring it from home, certain principles of wholesome food selection should be included.

1. Hot food — soup or beverage or stew
2. Main dish — sandwiches or rice with meat or fish

3. Juicy food — vegetables or fruits or salads
4. Dessert

SUGGESTIONS FOR PLEASING SCHOOL LUNCH

Lunch carried to school should be planned as carefully as any other meal. A balanced meal should be provided. If the lunch is not carefully planned, too often cold left-overs may be hastily collected with no thought of the importance of an attractive and tasty food. Plans for the lunch should be made well ahead of the time for its packing. Every girl should assist in planning and packing her lunch and not let her mother do all the work. When lunches are purchased in the school cafeteria, it is important to select the right foods. Many times the lunch chosen is not properly selected and does not furnish the food value needed by the body. Do not try to have many kinds of food in one lunch, or you will find it difficult to have variety from day to day. Sandwiches are easy to carry and easy to prepare. Variety in sandwiches may be had by having different sizes, shapes, and kinds of bread and fillings. Cooked rice may be brought from home with a slice of meat or fish. The lunch would be monotonous without a fruit, preferably a fresh juicy one. Vegetables should be included. A hot vegetable dish or hot soup may be bought from the school lunch room. Milk, chocolait or hot soup may be taken as a beverage. For dessert, have a piece of cake, a cookie, a piece of candy, dried fruit or any fresh fruit in season (a slice of ripe papaya, mango, etc). Remember to drink your daily water requirement.

A school lunch may be planned correctly and the food may be well cooked, but the lunch is not attractive unless it is well packed. A lunch that is attractive is pleasant to eat. The secrets of satisfactory packing are to keep all flavors separate and to prevent the food from becoming mashed. Sandwiches should be wrapped in waxed paper or paper napkin. Never use a piece of newspaper to wrap sandwiches. Clean banana leaves may be used to wrap cooked rice. Have a drinking cup, napkin, and silverware. Heavy things should be placed at the bottom and the box or container should be carried in the same position in which it is filled.

GENERAL HABITS FOR THE SCHOOL LUNCH

1. Observe the rules and regulations of the school lunch room.
2. Eat your lunch slowly, practicing good table manners.
3. Sandwich wrappings or fruit peelings should be thrown in the garbage can.
4. Eat in clean and pleasant surroundings.
5. Drink water at school.
6. Be sociable and enjoy your friends at lunch time.
7. Use your knowledge in selecting a balanced diet.
8. Practice economy. Get the most of your money's worth by getting what the body needs most.
9. After eating, clean the table.
10. Never use the lunch room as a dressing room.

VALUE OF A SCHOOL LUNCH ROOM

1. The food served is hot.
2. It is a center for the wise choice of food and the development of good health habits.
3. It supplies the necessary food nutrients that are lacking in meals at home.
4. The lunch room provides a place for social training — as in friendliness and table manners.
5. It provides an opportunity for correlating classroom teaching with experience and interest of students.
6. Food is sold at low cost.

HANDICAPS OF LUNCH BROUGHT FROM HOME*

1. It is troublesome to carry a lunch box to and from school.
2. The packing of the lunch usually adds to the work at a time of the day when everyone is busy.
3. Variety is necessarily limited in a school lunch because of the trouble in carrying the food and because much food is not good when prepared and packed four or five hours before it is eaten.

**Everyday Foods*, Harris and Lacey

4. It is impossible to provide hot food in a lunch box.
5. It is difficult to provide all the needed foods in a lunch box.

REVIEW

1. How does a recess lunch differ from a breakfast?
2. Mention foods that are good for recess.
3. What must one remember in the choice of a school lunch?
4. Discuss the disadvantages of bringing lunch to school.
5. Explain how the school cafeteria or lunch room may be of help.
6. Mention rules to observe when one uses the lunch room.

Unit IV

FOOD SELECTION AND PREPARATION OF SOME COMMON FOODS SUITABLE FOR DINNER

MEAT

Meat is the flesh or the edible portion of any part of an animal used for food.

The kinds of meat commonly found in the markets are beef (cattle), veal (calf), pork (swine), lamb and mutton (sheep).

Meat is composed of muscle fibers held together by connective tissue. Each fiber is composed of bundles of tiny tubes filled with muscle juice composed of water in which are protein, mineral matter, coloring matter and extractives. The extractives give flavor to the meat. The color of meat is due to the hemoglobin present in the muscle juice. This varies with the kind of animal, its age and food. Beef is darker than veal, but both contain more red pigments than mutton or pork. In between the muscles and surrounding tubes are particles or globules of fat. Intramuscular fat, which forms the so-called marbling of the lean, is usually considered more important in improving flavor and tenderness than cover-fat. Cover-fat decreases the time required for cooking, decreases loss of moisture during cooking, and aids in the development of the flavor.

When meat is cooked, the connective tissues are softened, the flavor is improved, and changes take place in the muscle juice.

SELECTION OF MEAT /

In selecting meat, its nutritive value as well as its palatability and cost should be considered.

The palatability of meat depends upon its tenderness, flavor, juiciness, and the method of cooking. Tenderness is influenced by the age of the animal, the location of the cut on the animal, the amount and distribution of fat, and the aging or ripening which takes place after the animal is killed. The amount and distribution of fat seem to improve the tenderness of cooked meat. A tender cut shows good marbling, medium firmness of the lean, and soft red bone. The tough portions come from the much exercised sections of the animal's body. The tough cuts usually have more flavor, contain as much food value and when well cooked are as pleasant to the taste as the tender cuts. The tough cuts cost less than the tender ones because there are fewer tender cuts in the animal carcass.

Qualities of good beef are: the color of the lean is cherry red; the fat is pale cream or white rather than yellow; it is well marbled with creamy white fat. Stringy, coarse meat is tough, while fine-grained, smooth meat is tender. The appearance of the bone is an indication of the age of the animal. The bone of a young animal is light pink and fine-grained. It contains marrow. The bone of an older animal is gray and coarse-grained.

Good quality pork has soft thin skin, is marbled and covered with a firm white fat free from fibers.

Generally speaking, meat from an older animal is better flavored than that from a young one. Veal, for example, has less flavor than beef.

The price of meat varies with the kind, grade and cut. Cuts of meat that can be cooked quickly cost less than those that require longer cooking. For quick cooking, the tender cuts are best. In figuring the cost of meat, the cost of preparation should be considered. To buy meat wisely, one should know the qualities she wants and the grade and cuts from the different animals. She should, of course, be able to identify these cuts.

A cut of meat from a sound animal is almost odorless, uniform in color, free from spots or bruises, dry, firm and uniform in texture. It should be inspected and stamped to protect the public.

When meat is brought from the market, wrap it and place in the coldest part of the refrigerator. Clean the meat before cooking, by wiping with a damp cloth. Never soak the meat in water for the minerals and extractives would be lost.

PRINCIPLES OF COOKING MEAT

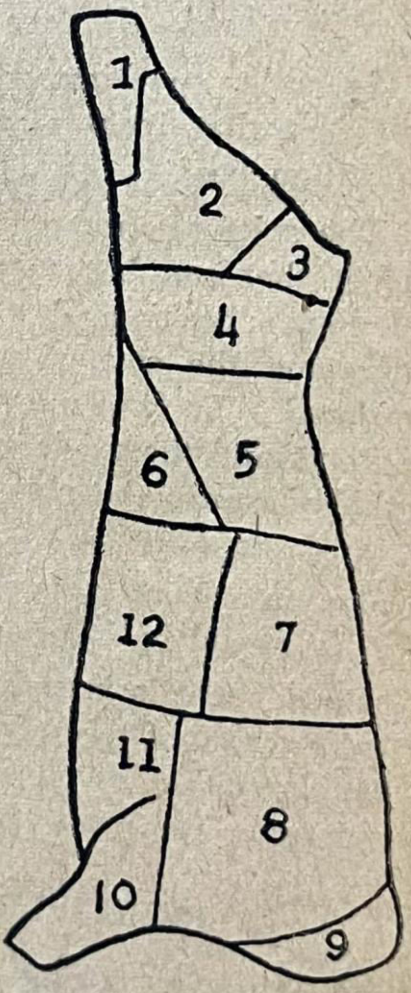
The aims in cooking meat are to change its color, retain and develop its flavor, and make it tender. In cookery, meat is classified into tender, less tender and tough cuts. Tender cuts of meat can be cooked successfully by dry heat — (1) broiling, (2) roasting, and (3) pan-broiling.

The aim of cooking tender meat is to develop flavor by browning the fat and extractives on the surface to produce the desired change in the color of the interior. To obtain the most palatable product, the juice must be maintained with minimum amount of shrinkage. In *broiling*, intense heat is applied for a short period of time. In *roasting* at low temperature, the meat heats through slowly so that there is opportunity for softening of the white connective tissue. In *pan-broiling*, the heat is conducted to the meat through the pan which is lightly greased with fat. Tender meats can be made tough and dry by poor roasting.

The tender cuts suitable for roasting are the ribs, loin, chuck, round; for pan-broiling — chuck, rump; for broiling — sirloin, porter house.

BEEF CHART

1. Hind Shank
2. Round
3. Rump
4. Loin End (Sirloin)
5. Short Loin (Porterhouse)
6. Flank
7. Rib
8. Chuck Rib
9. Chuck
10. Fore Shank
11. Brisket
12. Plate



Methods of cooking tough cuts are: (1) stewing, (2) braising, (3) pot-roasting, (4) chopping or grinding, and (5) Swiss steak.

Stewing — Suitable cuts of beef are the lean portions of the plate, neck and flank. In stewing, the meat is cut in uniform pieces of a suitable size for serving. These pieces are seared on all sides in hot fat in order to develop flavor. Water is added after the meat simmers until tender. Vegetables or dumplings may be added after the meat begins to become tender and to improve the flavor of the gravy.

Pot-roast — Cuts from the chuck or shoulder rump or round are suitable for a pot-roast. The meat should be seared in a small amount of fat to develop flavor. A small amount of water may be added (not more than one cup). Cover tightly and allow to cook slowly until the meat is tender. If vegetables are to be served with the roast, they should be added in sufficient time before the meat becomes tender to allow them to cook. Besides long, slow cooking in moisture, there are other methods which may be used to make the cuts more tender, such as pounding, which breaks the connective tissue; grinding, which breaks the tissue, and the use of acid, such as vinegar or calamansi.

Swiss Steak — The round cut can be made more tender by pounding, adding the flour to absorb any juices liberated. It is then seared in a hot pan and cooked slowly until tender.

Ground Meats — Brisket, rump, neck shank, and top chuck should be ground. The meat can be cooked by the same methods as the tender cuts and cooked as hamburger, meat loaf or meat balls.

Soup Stock — A well-flavored tough cut, such as a shank, should be used in making soup stock. The bone and meat should be placed in cold salted water and allowed to stand not more than thirty minutes to help extract the juices of the meat. The whole should be heated slowly to simmering temperature.

Meat is served in combination with other food, such as vegetables or cereals. These are called *meat extenders.*

REVIEW ON MEAT

I. Supply the necessary word or words to make each statement correct.

Tough cuts of meat are best cooked in (1) heat, such as by (2) and (3).

Tender cuts are successfully cooked by (4), (5), (6).

Meat dishes containing vegetables and cereals are called (7).

Muscles that are most used are found in the (8) cuts.

The flavoring materials found in meat are called (9).
The tenderest cut of meat is (10).

II. Define the following terms:

1. broil
2. braise
3. sear
4. roast

FISH

From the standpoint of food, fish includes all kinds of water animals used as food.

Classification of Fish (According to Stanley and Cline)

1. Fish (Vertebrates)
a. Fat fish or dark (5% fat)
(1) Salt-water
Herring (siliniasi)
Mackerel
Eels
(2) Fresh-water
Salmon, Catfish
b. Medium fat fish (2-5% fat)
(1) Salt-water
Halibut
(2) Fresh-water
Buffalo, Perch
c. Lean fish or white (under 2% fat)
(1) Salt-water
(2) Fresh-water
Apahap, Perch
2. Shell fish (Invertebrates)
a. Mollusks, Salt-water Oysters, Clams
b. Crustaceans
(1) Salt-water
Lobsters, Crabs, Shrimps
(2) Fresh-water
Crayfish, Terrapin

Kinds of Fish Found in the Philippines and Eaten as Food

Anchovy (dilis)
Asohos
Herring (siliniasi)
Hasa-hasa
Crab (alimasag)
Lobster

Apahap
Bakoko
Catfish
Dalagang bukid
Martiniko
Dapa
Kabasi
Bia
Lapulapu

Tanguingi
Milkfish
Mudfish
Mayamaya
Slipmouth (sapsap)
Surgeon-fish
(labahita)
Squid
Shrimp

Oyster
Talangca
Alimango
Alamang

NUTRITIVE VALUE OF FISH

Fish, like meat, is a protein food. The fat content of fish is considerably less than that of meat, hence it is lower in calories. Fish contains less iron than meat. Fish furnishes minerals to the diet, especially shellfish which are high in minerals. The calcium content of oysters is somewhat above that of meat. Salt-water fish are valuable sources of iodine. Some fish, such ash salmon, halibut and cod, are rich in Vitamins A, D and G. Fish livers are rich sources of Vitamins A and D.

Fish may be used interchangeably with meat as a source of protein without affecting the nutritive value or the cost of the diet. Fish differs from meat in these respects:

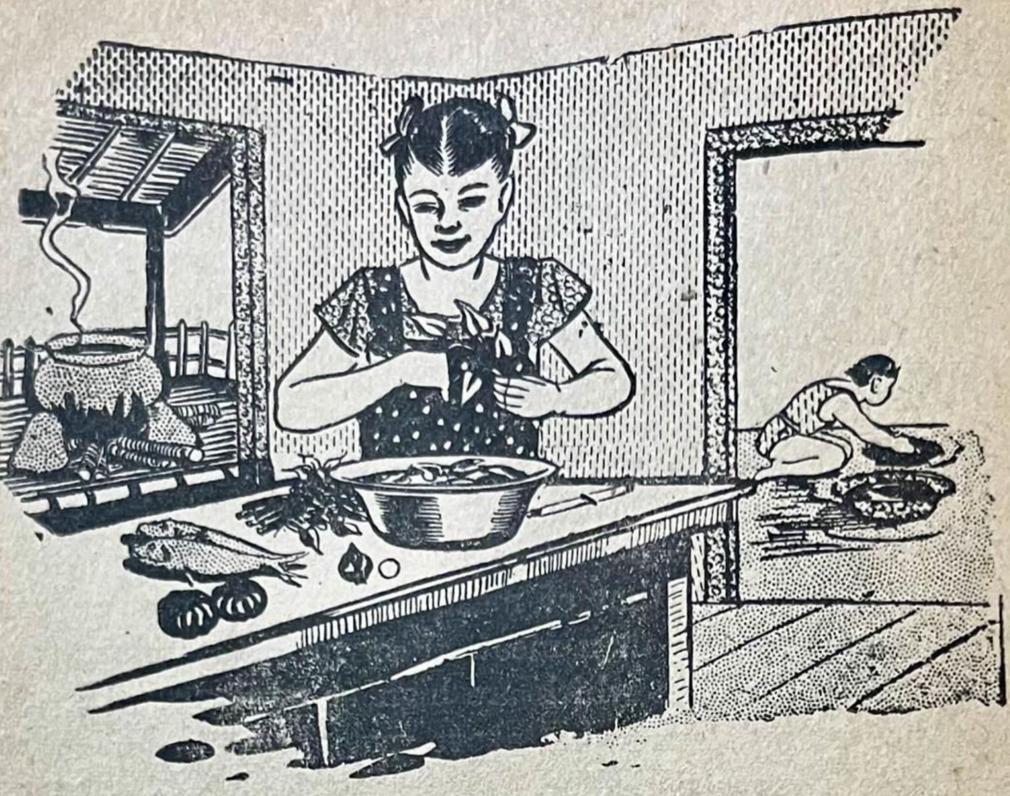
1. It contains considerably less fat.
2. It is deficient in extractives and hemoglobin.
3. It lacks connective tissue so it is never tough.
4. There is little or no elastin in fish and the collagen is easily disintegrated, leaving the muscle fibers separated.

CHARACTERISTICS OF FRESH FISH

1. The eyes are full, bright and bulging.
2. The gills are red.
3. The scales are bright.
4. The flesh is firm and elastic. (A finger pressed on the flesh should not leave a mark.)
5. It has no disagreeable odor.

Fish should be dressed at once or packed in ice. Because of its strong odor, it should be placed in a closed container and chilled or wrapped before it is placed in the coldest part of the refrigerator. Fish spoils quickly so it must be cooked immediately.

METHODS OF COOKING FISH



If the flesh is frozen, the fish should be thawed before cooking. Because fish contains a small amount of connective tissue, it may be baked or broiled in an uncovered pan or cooked like tender cuts of meat. If overcooked, it will fall to pieces. Acid helps to harden the protein, thus preventing unnecessary breaking. Since fish is lacking in extractives, foods with strong flavor and taste are good with fish. Tomatoes and calamansi are good because of the acid. They may be supplied with sauces, garnishes and vegetables. Vegetables should be carefully chosen because not all vegetable flavors combine well with fish.

Vegetables that are preferred with fish are potatoes, asparagus, tomatoes, camote and radish.

Garnishings — lemon, cucumber, pickles, tomatoes, young onion, celery lettuce, parsley, pepper.

Various ways of cooking native fishes — sarciado, escabeche, tocho, relleno, paksiw, fried, dried (daing).

Egg Sauce for Fish

1 c. white sauce No. 2
2 sliced hard-boiled eggs
2 tbsp. lemon juice or calamansi
1 tsp. parsley or young onion

When white sauce (medium) is cooked, remove from fire and beat in lemon juice if desired, add egg and onion.

Mock Hollandaise Sauce

1 cup medium white sauce
2 tbsp. butter
2 egg yolks
2 tbsp. calamansi or lemon juice

When white sauce is cooked, remove from heat and beat in the lemon juice gradually, then egg yolk and butter. Cook slightly to thicken yolks. Beat well and serve immediately with fish or vegetables.

Escabeche

1 medium-sized fish (bangus or apahap)
1 tsp. salt
1 large onion, sliced
1 sweet green and red pepper in strips (big)
1 carrot in strips
2 cloves garlic, crushed
4 apulid, sliced
4 tbsp. vinegar
4 tbsp. sugar
3 tbsp. toyo
1 1/2 c. water
2 tbsp. strach
Lard for frying

Sprinkle salt on the clean fish and set aside for ten minutes or more. Drain and fry in hot lard until golden brown. Saute garlic, onion, pepper, carrots and apulid. Set aside and prepare the sauce as follows:

Mix vinegar, sugar, toyo, and water. Thicken with flour and cook in low heat until of desired consistency. Add the sauted vegetables to this sauce and boil for 5 minutes.

Pour the sauce over the fried fish and garnish with young green onion.

White Sauce

White sauce is made of milk thickened with flour. The flour is mixed with the fat and then combined with milk.

The thinnest white sauce is made of 1 cup of milk thickened with one tablespoon of flour. Thicker sauces may be made by increasing the quantity of flour. The quantity of fat or butter must be increased.

In thickening a hot liquid with flour, do not put the flour or starch directly into the hot liquid. Instead mix the starch material with fat, could liquid or sugar.

White Sauce Recipe (Medium Thickness) No. 2

2 tbsp. flour	1 1/2 to 2 tbsp. butter or vitamin-A-margarine
1/2 tsp. salt	1 cup milk
Dash of pepper	

1. Measure the flour and seasoning. Then in the same tablespoon, measure the fat.
2. Put the measured ingredients in a sauce-pan — the dry ingredients on the side farthest away from the handle; the fat, nearest the handle. Tilt the saucepan over the flame so the butter will melt but the flour will not brown.
3. Remove the pan from the flame. Stir to mix the ingredients thoroughly. Add a small quantity of milk. Stir and heat until the ingredients are blended. Continue adding a small quantity of milk, stirring and heating.
4. When the last portion of milk is added and the mixture reaches the boiling point, the sauce is done. Remove the pan from the flame.

CLASSIFICATION OF VEGETABLES ACCORDING TO COMPOSITION

A. Green vegetables (including leafy and succulent) — They are high in water, vitamins and minerals, but contain little starch or protein.

Examples: lettuce, pechay, upo, patola.

B. Starchy vegetables — They contain an important quantity of starch or protein or both.

Examples: beans, corn, peas, potato.

CLASSIFICATION OF VEGETABLES ACCORDING TO FLAVOR

A. Mild vegetables have delicate flavor.

Examples: carrot, lettuce, potato, beans.

B. Strong vegetables have strong flavor due to the volatile oil in them.

Examples: cabbage, onion, cauliflower.

CLASSIFICATION OF VEGETABLES ACCORDING TO THE PARTS OF PLANTS FROM WHICH THEY COME

1. Roots — radish, carrot, camote
2. Tubers — potato, gabi
3. Bulbs — garlic, onion
4. Stems and shoots — celery, asparagus, bamboo shoots
5. Leaves — cabbage, lettuce, pechay
6. Flowers and fruits — cauliflower, eggplant, squash, tomato
7. Pods and seeds — peas, cowpeas, green beans

BUYING AND CARING OF VEGETABLES

1. Vegetables that are in season are superior in quality and more economical.
2. Select young, fresh, firm but tender vegetables, free from bruises or other imperfections.
3. Choose vegetables that are displayed and handled under sanitary conditions.
4. Fresh vegetables should be washed before they are used and before they are placed in a refrigerator. Most root vegetables can be kept in a cool place without refrigeration.
5. Avoid buying over-ripe vegetables, especially tomatoes.

NUTRITIVE VALUE OF VEGETABLES

The composition of vegetables varies with the plant and the part of the plant used. Starch, the most concentrated form of carbohydrates, is found in the storage portion as in the mature seed. Some vegetables are important sources of energy. As a whole group, they are chiefly valuable sources of minerals and Vitamins A, B, C, G and E, and niacin. They contain varying amounts of cellulose which promotes normal elimination. Vitamin A is found in yellow vegetables especially camote, carrots, yellow corn and squash, and in green leafy vegetables such as spinach. The thinner and greener the leaf the richer is the content of Vitamin A. Vitamin C is best found in fresh green leaves and shoots, all growing parts of the plant. Since Vitamin C is easily destroyed by storage or cooking, these foods are most valuable when eaten fresh from the garden.

GENERAL PRINCIPLES OF COOKING VEGETABLES

So as to preserve the greatest amount of nutrients:

1. Cook vegetables in as little water as possible in a covered container.
2. Whenever possible, utilize the water in which the vegetables have been cooked for soup, sauce or gravy.
3. Cook vegetables whole to keep the vitamins.
4. Vegetables that need paring or cutting should be washed before they are pared or cut. Very thin parings should be removed.
5. Cook vegetables until they are more tender than when raw but still have a little of the crispness of the uncooked vegetables.
6. When cooked with meat, add vegetables just before the meat is tender enough to make both done at the same time.
7. Start cooking vegetables in boiling water.
8. Don't let vegetables stand in water after paring. Cook them at once.
9. Serve vegetables hot, immediately after they are cooked.
10. Cook strong-flavored vegetables in an uncovered vessel.
11. Baking or steaming vegetables saves their minerals and vitamins.

REVIEW ON FISH AND VEGETABLES

1. Fish

Answer the following questions:

a. Explain how to determine a fresh fish.
b. Mention available kinds of fish found in the market.
c. Why do we cook fish?
d. What food value do you get from fish?
e. How does fish differ from meat?

2. Vegetables

Fill in the blanks.

a. ——— is a good method to use for cooking most vegetables.
b. All fresh vegetables are valuable for their ——— and ———.

c. Strong-flavored vegetables should be cooked in an ______ cooking vessel.

d. Start cooking vegetables in ______ water.

e. ______ vegetables contain much starch or protein.

Answer the following questions:

a. Discuss the principles to remember when buying vegetables.

b. How do you prepare vegetables to get the greatest amount of nutrients?

c. Why should vegetables be served hot?

SOUPS

Soup is a broth made from meat or vegetables with a seasoning and an addition of vegetables or food materials.

Stock is made from meat and vegetables, seasoned to taste and served without meat or vegetables.

Kinds of Soups

1. Soups made without stock, using milk and cream combined with vegetable pulp.

[redacted]

   a Cream soups — made of white sauce plus a vegetable or fish pulp, seasoned. They are more nourishing and filling and are a better choice for a lighter meal, luncheon or supper.

   b. Purees — soups which are thicker than cream soups. They are made thicker by adding more of the vegetable pulp than is needed for cream soups.

2. Soups made with stock, either clear or combined with vegetables, meat or fish.

   a. Clear soups — usually made from meat broth. They are not thickened with flour or any other starchy material, but are often clarified by cooking with egg white and shell and then strained. Clear soups are suitable for dinner or a hearty meal.

   Clear soups are divided into bouillon or consomme and bisque.

   (1) Bouillon is made from lean beef delicately seasoned and is served clear.

[redacted]

(2) Consomme is made from two or three kinds of meat lightly seasoned and cleared before serving.

(3) Bisque is made from shellfish, milk and seasonings.

b. Thickened soups — made by adding cream or white sauce to stock or combining with meat or vegetables. Soups used for the first course at dinner are often clear soups, but cream soups may be used when the rest of the dinner is not too heavy.

Soups with Stock

1. Brown soup — made from beef (lean meat, bone and fat)
2. White soup — made from chicken or veal
3. Fish stock — made from fish bones and heads or especially from fish or shell fish.
4. Vegetable stock — water in which vegetables are cooked.

How to Clear Stock

Remove fat from cold stock and put quantity to be cleared in stewpan, allowing the white and shell of one egg to each quart of stock. Beat the egg slightly with fork and add two teaspoons of cold water to each egg. Break the shell in small pieces. and add to the stock. Place on stove, and stir constantly until boiling point is reached; boil 2 minutes. Set back and let stand 20 minutes without stirring, and strain through a fine strainer lined with a double thickness of cheesecloth.

Soup accompaniments

1. Crisp crackers
2. Breadsticks
3. Croutons

Croutons

Cut stale bread in 1/3 inch slices and remove crusts. Spread thinly with bread. Cut in 1/3 inch cubes, put in pan, and bake until delicately brown or fry in deep hot fat.

SALADS

Salads may be made from vegetables, fruits or meats or may be a combination of vegetables and fruits or meats and vegetables to which has been added some kind of dressing or small amounts of other materials to give flavor.

Classification of Salads

1. Light salads are simple combinations of fruits or fresh vegetables simply dressed. They are valued for their appetizing qualities and for the minerals and vitamins present in the fresh and usually uncooked foods used. They stimulate rather than satisfy the appetite. They appear as a part of a heavy meal between the main course. Some individual light salads take the place of the first course of the meal after dinner.

Salads served at dinner are usually light. Those served at luncheon are heavy. There are salads appropriate for tea parties or other occasions, and there are those served as dessert.

2. Heavy salads have as their basis food fruits or cooked vegetables or meat, cheese, eggs and nuts. The dressing is richer than that used for light salads. It furnishes not only minerals and vitamins but also building materials or calories. It is thus generally served during luncheon. It may form the main dish of a meal.

Parts of a Salad

1. Body or basal portion — consists of cooked or raw fruits, vegetables, meat, fish, poultry or noodles
2. Dressing gives flavor to the mixture. Salad dressings are classified as follows:
   a. Uncooked dressings
      (1) Simple mixtures — calamansi or vinegar and seasonings
      (2) French dressing — —made from oil, acid (vinegar or calamansi) with any desired seasoning (salt, sugar, pepper)
      (3) Mayonnaise — made from an egg yolk or whole, oil, acid and seasonings
      (4) Cream dressing — made from cream and seasonings
   b. Cooked dressings

      These consist of a liquid (milk or water) thickened with starch or eggs or both, which hold the fat in suspension plus seasonings.

Value of Salads

The food value of salads depends upon the combination of various ingredients. Light salads are rich in minerals and vitamins.

Fruit and vegetable salads are rich in Vitamin C. To retain as much Vitamin C as possible, materials should be cut or sliced just before serving. Heavy salads, like meats, fish and starchy vegetables, give the body high fuel. Green and yellow vegetables add Vitamin A to the diet. Salads serve also as laxative due to their cellulose, acids and fats. Left-over meats, fruits or vegetables can be used as salads. They are economical and save time and energy.

Salads are classified according to the materials used, such as vegetables, fruits, meat, fish, poultry and gelatin or by the dressing or both. Generally, lettuce is the cheapest and most easily available salad green but other greens can be used, such as cabbage, water cress, endive or any other greens in season.

Olive, corn and cottonseed oils are commonly used for salad dressings. One is as good as the other. Salad dressings contain an oil or fat, seasoning and an acid. A well made dressing gives flavor and makes the salad more nourishing because of the presence of oil or egg. The process of allowing salad materials, like meats and vegetables, to stand in French dressing until well seasoned is called *marinating*.

How to Prepare a Good Salad

1. Use clean, crisp, tender and fresh lettuce or other greens desired. To insure crispness, wash in cold water but do not soak in water. Drain and place in a covered container and store in refrigerator. Dry excess moisture or greens with a towel. Serve the leaves cold, crisp and dry.
2. Cut cooked vegetables in uniform size and shape. Pieces should be of sufficient size to retain identity.
3. Canned fruits and vegetables should be well drained. Dry thoroughly fresh vegetables.
4. Chill all ingredients before mixing.
5. Cover with lemon juice or calamansi juice to prevent the darkening of cut surfaces of apples and bananas.
6. Use stainless knives for cutting vegetables and fruits.
7. To improve the flavor, marinate the meat, vegetables (potatoes), and fish. The French dressing is drained off before the salad is made.
8. Handle all salad materials as little as possible. Toss lightly, do not overmix.

9. Combine materials just before serving. Lettuce or other crisp materials wilt when in contact with the acid.
10. Garnish attractively Strips of pimento, pepper, carrots, nuts, slices of eggs or tomatoes add color to the salad.
11. Serve in medium-sized portions. Make dished salads look natural. Do not smooth the top and never hang the lettuce over the edge of the container.
12. Always serve salads cold or chilled.

French Dressing

1/2 tsp. salt
1/2 tsp. paprika
or pepper
6 tbsp. salad oil
2 tbsp. vinegar, or calamansi or
lemon juice

Put all ingredients into a bowl and beat with a rotary egg beater, or place them in a bottle and shake.

(Note: Plain French dressing needs to be stirred or shaken just before serving.)

Mixed Raw Vegetable Salad Bowl

Rub a salad bowl with a cut, peeled clove garlic. Break up crisp salad greens into pieces in salad bowl, enough to fill the bowl about two-thirds, or use part green and part shredded raw cabbage. Then add 2 or more of the following raw vegetables well chilled: raw carrots, raw celery, raw cauliflower flowers, raw cucumber, onions minced or in rings, green peppers diced or in rings.

Just before serving, add enough French dressing to moisten the ingredients, toss lightly with a spoon and fork. Serve from salad bowl, or arrange salad in lettuce plates and serve with mayonnaise or French dressing.

REVIEW ON SOUPS AND SALADS

1. Soup
    a. How are soups classified?
    b. Discuss the value of soup in the diet.
    c. Mention some soup accompaniments.
    d. Differentiate stock from soup.
    e. Discuss how to clear a soup.

f. Identify the following:

(1) Bisque
(2) Bouillon
(3) Consomme
(4) Puree
(5) Cream soup

2. Salads

Fill in the blanks with the correct word.

a. ______ salads are usually served at dinner.
b. ______ salads are valued for their minerals, vitamins and appetizing value.
c. The important ingredients in simple dressing are ______, ______, ______.
d. Mayonnaise is an example of ______ dressing.
e. Salads are always served ______.

Answer the following questions:

a. Describe a good salad.
b. Define the term "marinate."
c. How can you prevent the darkening of bananas or apples?
d. Mention food materials used for garnishing salads.
e. What are the important parts of a salad?

DESSERT

The choice of the dessert depends on both the heaviness and flavor of the dishes of the dinner. It should be light like the salad. Fruit ices or frozen desserts, fresh fruits and gelatin or *gulaman* can be served. Salads made of various fruits make good desserts.

Gelatin or Gulaman Dessert

A gelatin dessert is often chosen to complete the dinner meal. Gelatin is formed from connective tissue of bones, skin, joints, and ligaments soluble in hot water and used in making salads and desserts. Gelatin is an incomplete protein, so it lacks important amino acids. It is useful in the preparation of attractive and palatable dishes. Gelatin differs from flour and egg in that the fruit juice or water which it thickens remains clear and transparent. Fruits set in gelatin appear in their original color. The food value of a gelatin dish depends on the other foods added. Gelatin is found in the form of sheets which can be bought in bulk. The plain granulated kind is commonly used for the household and is generally sold in packages. Sugar, water and flavoring is added to it. The pulverized or powdered form can be purchased with fruit flavor and sugar. Water is only added to make a dessert. To increase the food value of the gelatin dessert, fruit juice or syrup from canned fruits can be added to take the place of water.

How to Prepare Gelatin Fruit Dessert

Gelatin dissolves more readily if soaked in a small amount of cold water to allow it to soften and swell before adding hot water. The sheet and shredded forms require longer cooking. Sugar and flavoring should be added after the gelatin is dissolved. Strain through a cheesecloth if a clear jelly is desired. Drain fruits thoroughly and add just after it starts to jell or stiffen. If fresh pineapple is used, the fruit must be cooked before adding. Pineapple contains an enzyme which liquefies gelatin. One half tablespoon of granulated gelatin or 5 grams of any form stiffens one cup of liquid. The stiffness is affected by the concentration, acidity, temperature and time. The lower the temperature, the shorter the time necessary for gelatin. The greater the acidity, the less firm the jelly and the longer the time required to jell. Before pouring the liquid, rinse the mold in cold water, but do not dry with a cloth. Place in refrigerator or ice to stiffen. To unmold, dip the mold in hot water and shake gently. Then lightly loosen, remove water and invert on a plate.

Gelatin Fruit Salad

1 package prepared gelatin—lemon, orange, raspberry or other fruit flavor
1 c. boiling water
1 c. cold water or fruit juice
Few grains salt
1 c. fruit, fresh or canned, cut into medium-size pieces—grapes, pineapple, cherries, bananas, oranges, etc.
One kind of fruit or a combination of several may be used.

Put the gelatin in a bowl. Pour hot water on it, stirring until dissolved. Add cold water or fruit juice and salt. Mix thoroughly. Pour into a mold and set in a cold place to chill. If time is limited, setting the mold in a pan of cracked ice will hasten the thickening process. When the liquid begins to thicken, add fruit to the gelatin. Continue chilling until the mixture is firm.

Beverages

Water is essential in regulating the body processes. Since fifty-eight per cent of the human body is composed of water, at least six to eight glasses of water should be taken every day. Water when taken at mealtime aids digestion. Water must not be taken to wash down food for it leads to rapid eating or overeating. Cold water should be sipped slowly.

Milk is a beverage and is the most suitable food for the young. For dinner it may be served either hot or cold both for the young and old. Four tablespoons of powdered milk to a cup of water is equivalent to a cup of fresh milk. In case evaporated milk is used, allow one to one proportion, that is, one half cup of evaporated milk is added to one half cup of water.

Fruit juices are suitable for dinner. They may be taken fresh or canned. Fresh juices are richer in Vitamin C than canned juices. If fresh fruit is used, wash the fruit thoroughly. After extracting the juice, serve it immediately because the vitamins are oxidized if allowed to remain in the air. Sugar may be added sparingly. Calamansi juice and pineapple juice are good sources of Vitamin C.

CAKES

Cakes are classified into:

1. Butter cake — contains butter or other fats.
2. Butterless or sponge cake — contains no fat or butter.

The basic ingredients of butter cakes are fat, sugar, eggs, flour, liquid, leavening agents, and flavoring. The quality of the ingredients and accurate measurements are necessary to make a good cake.

Soft wheat flour should be used in making cakes. If hard-wheat flour or bread flour is used, a little cornstarch may be added. One tablespoon of cornstarch is placed in a standard measuring cup and then filled up with the sifted hard wheat flour. The addition of cornstarch makes the cake more tender. The large amount of gluten in hard-wheat flour makes the cake tough. Hard-wheat flour absorbs more liquid than soft-wheat flour. In substituting hard-wheat flour for soft-wheat flour, use two tablespoons less per cup of hard-wheat flour.

The liquid is either sweet or sour milk. If sour milk is used, it helps leaven the mixture. Water may be used but the food value of the cake is decreased. The proportion of the liquid is reduced when a large amount of eggs is used.

Fine granulated sugar, rather than the coarse type, helps make a fine grain.

Eggs are important to make the cell walls firm and are a means of introducing air in the cake. Eggs are easily separated when cold but the egg whites at room temperature beat up more readily than when cold.

The fat or butter helps give the cake a delicious flavor. Fats which can be creamed well give good texture to the cake.

Air introduced in the egg whites serves as leavening. Baking powder is frequently used as a chemical agent.

The flavorings most used are fruit juices, spices, and extracts like vanilla. The size and position of pans in the oven and correct oven temperature are important in making the cake a success. The size of the pan depends upon the quantity of flour. A butter cake containing —

1. Two cups of flour will fill two 8-inch layer-cake pans or one 9-inch square pan.
2. Three cups of flour will fill three 8-inch layer-cake pans or two 10-inch layer-cake pans or one 9-inch loaf-cake (or bread) pan.

Cakes baked in muffin pans are called cup cakes.

Cake pans should be greased with fat or the bottom may be lined with oiled or wax paper.

The baking of the cake is as important as the procedure used. In baking a large loaf cake, the temperature should be reduced.

The following guide of temperature and time may be used for butter cakes (regulated heat):

Cup cakes	375°F	20 to 25 minutes
Layer cakes	375°F	25 to 30 minutes
Loaf cakes	350°F	45 to 60 minutes

To heat an oven if it is not a heat-regulated one, place a piece of paper or a shallow pan containing a spoonful of white flour in the oven. Note the time. After two minutes the flour or paper should be light brown.

Helpful Hints in Determining Whether a Cake is Baking Properly

1. The baking time is divided into quarters.
2. The oven door may be opened only at the end of each quarter for a short time.

a. End of first quater	Cake begins to rise.
b. End of second quarter	Cake continues to rise and begins to brown.
a. End of first quarter	Cake has finished rising and becomes more brown.
d. End of fourth quarter	Cake has finished browning and shrunk from the sides of the pan.

If the cake is baking as it should be, regulate the temperature. If baking is even, do not open the oven door until baking is complete.

How to Test a Cake When Done

1. A toothpick when inserted in the center of the cake comes out clean, without any batter or crumbs.
2. When the cake is pressed by the fingers, the cake springs back and the mark made by the finger disappears.
3. The cake separates from the sides of the pan.
4. The top is evenly browned.

When the cake is done, let it remain in the pan for two minutes. Loosen the sides carefully with a spatula or knife. If lined with paper, the cake can be taken from the pan easily. Place the cake upright on a cake rack and let it stand until it is cool.

Causes of Cake Failures

Causes	*Defects*
1. Too much shortening	Crumbly, too compact, may fall.
2. Too little shortening	Tough, dry, tasteless.
3. Too much sugar	Coarse grain, hard, grainy, moist crust sticks to pan.
4. Too little sugar	Tough and heavy.

5. Too much flour or little liquid	Dry, heavy, cracked tough crust.
6. Too little flour or too much liquid	Too compact.
7. Too much baking powder	Coarse grain, fall apart, run over the pan.
8. Too little baking powder	Heavy, under-sized, tough.
9. Too high temperature	Cracked, tunneled crumb, burned sides.
10. Too low temperature	Coarse dry grain, under-sized crust, sink in the center.

CAKE STANDARDS AND SCORE CARD

	Perfect Score
1. General Appearance	
a. Shape — even, flat or slightly rounded top	5
b. Crust — evenly browned (not too thick or dark), no sugar spots	10
2. Crumb	
a. Grain — fine, even (no tunnels)	15
b. Tender, but not crumbly	10
c. Moist, but not sticky	10
3. Lightness (delicate, not bready)	15
4. Flavor — not insipid, not over- or under-sweet, no rancid fat	35
Total	100

Plain Cake

1/2 cup butter
1 cup sugar
2 eggs, separated
2 cups flour
3 tsp. baking powder
3/4 cup milk
1 tsp. vanilla

Cream the butter; add sugar slowly, beating well after each addition. Reserve 1/4 of sugar for the egg white. Add the beaten egg yolks and continue beating until light. Add the flavoring. Sift together the flour and baking powder. Add alternately with the milk, end with the flour. Stir well until the batter is smooth.

Fold in the beaten egg whites (with the sugar). Bake in a moderate oven temperature of 350°F.

GENERAL METHODS OF COMBINING INGREDIENTS IN CAKES

1. *Conventional Method*

The fat and sugar are creamed until light and fluffy. One fourth cup of sugar is reserved for the egg whites. Sugar is added little by little and creamed well after each addition. Separate the yolk from the white and beat. The beaten egg yolks are added to the creamed fat and sugar. Sift dry ingredients before measuring. Combine all dry ingredients together, flour and baking powder. Add the flour alternately with the milk. Add flour the last. After each addition, beat the batter only about one half minute, add the flavoring. Beat the egg whites until stiff but not dry. Add the reserved sugar and continue beating until well blended. Fold this into the batter. Pour immediately in the greased pan and bake according to the size of the pan. The conventional method produces cakes of finer grain but requires about twice as much time as the muffin method.

2. *Muffin Method*

Combine the sifted ingredients (flour, baking powder, salt, sugar) in one bowl and the wet ingredients (melted fat, beaten eggs, liquid) in another bowl. The liquid is added gradually to the dry ingredients. Stir only until ingredients are well mixed. Unnecessary mixing should be avoided, for it develops gluten and increases the formation of tunnels. The muffin method is fine for a simple cake which is eaten almost immediately. The grain is coarse and it dries out rapidly.

PREPARATIONS NECESSARY FOR MAKING A CAKE

1. Use accurate measurements.
2. Read the entire recipe before you begin and try to visualize each step.
3. Ingredients should be of good quality.
4. Have all the utensils and materials on hand and collected together before starting the work.
5. Prepare necessary pans before mixing.

6. Sift dry ingredients once before measuring. Use standard measuring cups and spoons.
7. Use level measurements for all materials.
8. Heat the oven in advance to have a steady even heat at the right temperature by the time you are ready to begin baking.

KINDS OF FROSTINGS

Frostings made of confectioner's or powdered sugar are usually uncooked. When granulated sugar is used to make frosting, the sugar is dissolved in a small amount of liquid or water and cooked. This is called cooked frosting.

Butter-Cream Frosting (uncooked)

1/4 cup butter or margarine
2 cups confectioner's sugar
3 tbsp. top milk or cream or evaporated milk
1/8 tsp. salt
1 tsp. vanilla

Cream the butter. Add 1 cup sugar and continue creaming. Add the milk, vanilla and salt. Mix in more of the sugar just enough to make the frosting of proper consistency.

Seven-Minute Frosting (cooked) — For two-layer cakes

1 1/2 cups granulated sugar	1/3 cup water
1 tbsp. light corn syrup or	2 egg whites, unbeaten
1/4 tsp. cream of tartar	1/8 tsp. salt
	1 tsp. vanilla

1. Into the top part of a double boiler put all the ingredients except vanilla. Beat with a rotary beater until well mixed.
2. Place over boiling water. Beat and cook for about 7 minutes, or until peaks will form when the beater is lifted.
3. Remove from the boiling water. Add vanilla. Continue to beat until the frosting is thick enough to spread.

COOKIES

Cookies are a modified form of cake. The two general classes of cookies are (1) rolled and (2) dropped cookies.

Rolled cookies are obtained from a modified cake recipe by decreasing the amount of liquid so that a stiff dough results.

Dropped cookies are softer than the rolled ones but not as thin as the cake batter. The amount of flour is increased or the liquid is decreased. They are dropped from a spoon into a greased baking sheet and baked in a moderate oven. Dropped cookies are thicker than the rolled ones, thus they require a longer time of baking. Since dropped cookies expand twice the original size when baked, enough space should be allowed when dropped on the cookie sheet.

REVIEW ON DESSERTS AND CAKES

1. Desserts

Fill in the blanks with the correct answers.

A light dessert should follow a ——— meal and a heavy dessert should follow a ——— meal.

Gelatin is dissolved in ——— water, while ——— water swells and softens it.

Gelatin is ——— protein.

——— of granulated gelatin stiffens one pint of liquid.

To unmold gelatin dip in ——— water.

Fresh pineapple should be ——— before adding for it contains an ——— which liquefies gelatin.

Drained fruits should be added just before the gelatin ———.

2. Cakes

Fill in the blanks with the correct answers.

a. In order to insure accuracy when following a recipe, all measurements must be ________.
b. Cakes are divided into two classes, those made with ______ and those made without it.
c. Layer cakes containing butter should be baked at ________.
d. All dry ingredients should be ______ once before measuring.
e. ________ the butter and sugar until light.
f. The ________ method produces better-quality cakes.
g. The quickest method of mixing ingredients for cakes is ________.
h. To substitute bread flour for cake flour use ________ cornstarch for every cup.
i. ________ flour absorbs more moisture than ________ flour.
j. ________ cookies are softer batter than ________ cookies.

Answer the following questions:

a. How do you test whether a cake is already done or not?
b. How do you test the heat of an oven if there is no heat regulator?
c. Describe the characteristics of a good cake.
d. How do you use cooked or uncooked frosting?
e. Explain the causes of the following:
    (1) Heavy, under-sized cake.
    (2) Moist crust.
    (3) Dry, heavy with cracked tough crust.
    (4) Coarse grain, fall apart.
    (5) Too compact, may fall.

Unit V

A FAMILY DINNER

Generally, the heaviest meal served during the day is dinner. It should be planned that it contains the needed foods which have been omitted in the other meals of the day. If the breakfast and the luncheon are light, it is necessary to serve a heavy dinner. The age, sex, weight, health and the kind of activity of the members of the family should be considered in the planning. Dinner is a more elaborate meal and a greater variety of foods is served. The success of the meal depends not only on the food needs of the body and the art of planning them but also in the art of cooking. The family dinner should be simple, balanced, well-cooked, consisting of two or more courses.

Plan. I. Meat or fish

Soup or cocktail (sometimes)
Vegetables
Bread and butter or rice
Dessert

Plan II. Soup or cocktail
Meat or fish
Vegetables
Bread and butter or rice
Salad or dessert
Beverage

Standards by Which a Menu is Judged

1. Palatability — Careful flavor combinations should be observed, such as sweet and sour, mild and strong.

   Avoid: Excessive blandness in flavors of food, such as boiled potatoes, boiled cabbage, etc.
   Monotony of flavor (macaroni soup and pansit)
   Excessive acidity (sinigang, paksiw)
   Repetition of flavors (tomato salad and tomato soup)
2. Texture — There should be contrast in soft and solid foods (soup and beefsteak).
   Serve crisp vegetables.
3. Appearance — Good color combination should be included (yellow corn soup and lettuce tomato salad).
4. Form and shape — There should be contrast of small and big sizes of food and variety of shapes.
5. Quantity — Serve enough (not too large or too small servings).
6. Temperature — Dishes that are hot should be served hot; cold foods should be chilled before serving. Contrast of hot and cold dishes should be observed (soup and salad).
7. Cost — Serve foods in relation to the income of the family. Be economical.
8. Adequacy — Does the meal provide the necessary kinds and amounts of foods in relation to the other meals of the day?

Filipino Dinner Menu

A	B
Clam soup with malunggay	Corn soup with sili leaves
Camote tops with calamansi	Beef azado
Fried fish	Lettuce salad
Rice	Rice
Fruit in season	Fruit jam or preserve

MEAL PLANNING

An easy way of planning balanced meals is to include one or more foods from each of the "basic six food groups," in the proper amounts during the day.

*Group I — Leafy, Green and Yellow Vegetables — some raw, some cooked — one or more servings (1/2 cup per serving).

Leafy vegetables — Amargoso, camote tops, kangkong, lettuce, alugbati, malungay, kolitis, pechay, saluyot, squash tops, and other vegetables.

Green vegetables — Batao, habichuelas, seguidillas, sitao, etc.

Yellow vegetables — Camote, squash, corn

Group II — Vitamin C-Rich Foods — One or more servings (1/2 cup per serving)

Fruits — Calamansi, carambola (balimbing), cashew, guava, orange, papaya, strawberry.

Vegetables — Amargoso, cabbage (raw), pepper (green and red), tomato, bamboo shoots, sprouted mongo.

Group III — Succulent Fruits and Vegetables — Two or more servings

Vegetables — Chayote, eggplant, patola, cauliflower, banana blossom

Fruits — Atis, avocado, banana, chico, duhat, mango, pineapple, melon, anonas, and other fruits.

Group IV — Milk, Cheese, Butter and Fat-Rich Foods — Three to four cups of milk for children, four cups for expectant and nursing mothers, 2 cups for adults. Some butter or fortified margarine every day.

Milk, cheese and butter — Fresh, evaporated, powdered or condensed milk, cheese (all kinds), ice cream, butter, margarine.

Other fat-rich foods — Chocolate, peanut, coconut, cashew.

Group V — Meat, Fish, Poultry, Eggs or Dried Beans — One or two servings of meat, fish, poultry (4 oz. per serving), 3 or 4 eggs a week.

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*From a leaflet issued by the Institute of Nutrition, Manila.

Beef, lean pork, liver, heart, kidney and other internal organs, eggs, sausage, chicken, duck and other poultry, fish, shellfish, shrimps, other sea foods, dried beans, nuts

Group VI — Rice and Other Energy-Giving Foods (preferably wholegrain or enriched) — Three or more servings.

Rice and rice products — rice, pinipig, puto, suman, champorado, and other rice products.

Cereal products — corn flour, bread, binatog (hominy), other cereals

Root vegetables — camote, cassava, gabi, potato

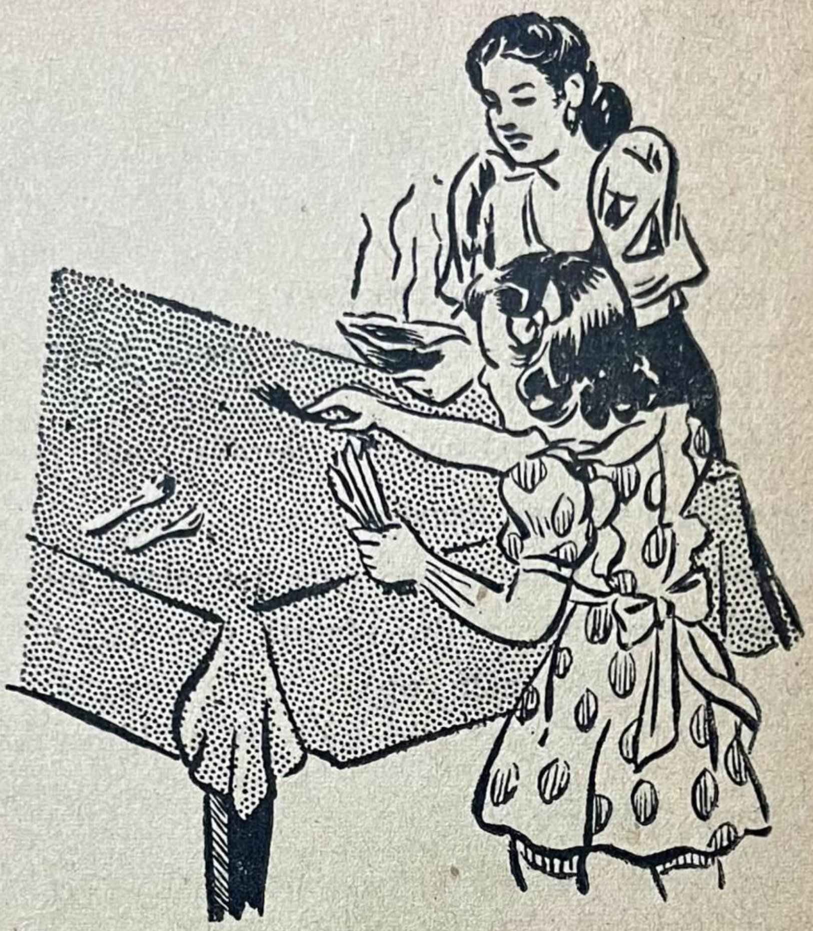
Approximate Sizes of One Serving

1. Cooked rice: One to two cups (standard measuring cup)
2. Cereal: One-half to three-fourth cup
3. Vegetables: One-half cup
4. Meat: 4" x 2" x 1" slice or 4 oz. or 120 grams

Rules for Meal Planning

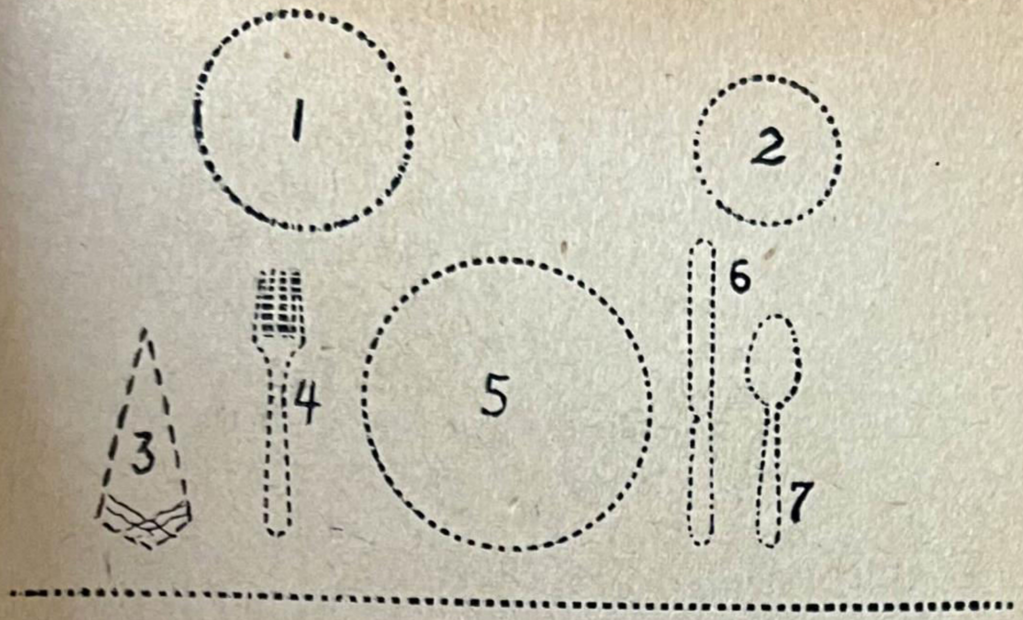
1. Select foods that meet the nutritional needs of those for whom the meal is planned, using the protective foods list as a basis.
2. Have variety in color, texture and flavor and temperature— colorful and colorless food, hot and cold, soft and solid texture, sweet and sour.
3. Select foods in season.
4. Consider the amount of time and equipment necessary in the preparation.
5. Avoid serving foods prepared in the same way at the same meal — fried fish, fried eggplant, fried bananas.
6. Avoid preparing one type of food in the same meal — misua soup, pancit, macaroni salad.
7. Serve foods that are readily and easily prepared.
8. Consider the pocketbook of the family.
9. Prepare enough balanced meals.
10. Serve only one strange food at a time, prepared in a familiar way liked by the family.
11. Prepare "surprise meals". Serve season foods at the start of the season.

TABLE SERVICE



Mealtime is one of the most important gatherings of the family. A meal will be more enjoyable if served in a cheerful atmosphere. If one practices table manners correctly, he can be confident of his ways when he goes out in company. The following rules may be followed in setting a table:

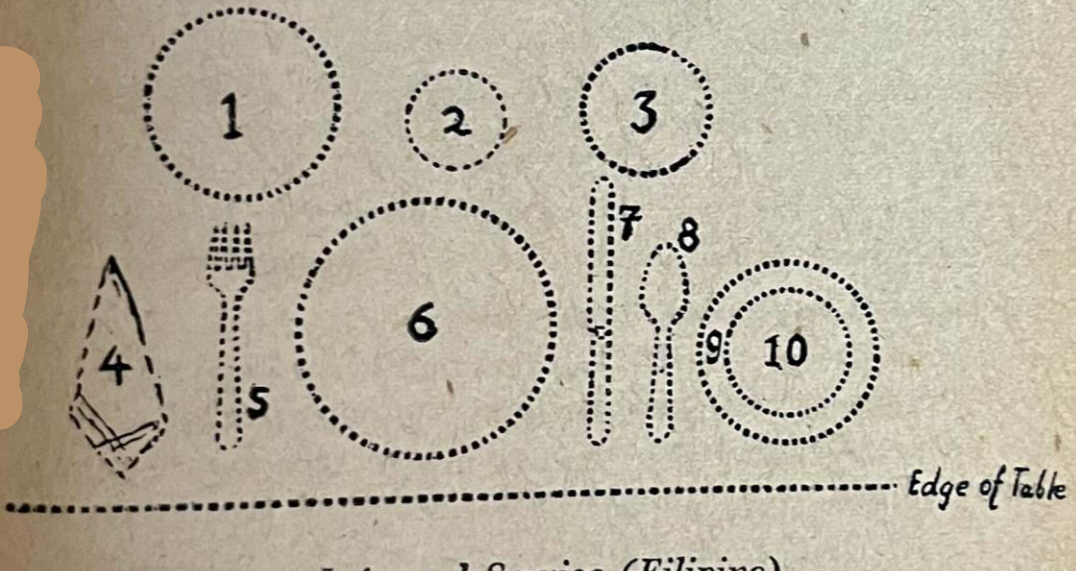
1. The table cloth should be clean and well pressed. A colored or figured cloth may be used but plain white or damask is more appropriate for company meals.
2. The cloth should have the fold exactly in the middle of the table. A low flower vase with a few fresh flowers or a bowl with fruits may be used as a centerpiece.
3. A "cover" is a space occupied by the china, silver, glassware and linen of each person which is generally 20 to 24 inches long. It should be arranged as follows:



A Cover

1. Bread and butter plate
2. Glass
3. Napkin
4. Fork
5. Plate
6. Knife
7. Spoon

[redacted]


1
2
3
7
8
6
4
9
10
5
Edge of Table

Informal Service (Filipino)

1. Rice plate or bread and butter plate
2. Saucer for toyo, patis, or vinegar
3. Glass
4. Napkin
5. Fork
6. Plate
7. Knife
8. Spoon
9. Saucer
10. Cup for pesa, or sinigang or for coffee or chocolate

[redacted]

The knife is placed at the right of the plate with the sharp edge towards the plate. The spoon is placed to the right of the knife. The fork is placed at the left of the plate with tines up. The napkin is placed at the left of the fork with the lower right-hand corner, the open corner, towards the plate. The glass is placed at the tip of the knife. The saucer for patis or vinegar is placed above the plate. All of these except the glass and bread and butter plate are placed about one inch from the edge of the table. When hot beverage or soup is served, it is placed at the right of the spoon with the handle of the cup parallel to the edge of the table.

Serving*

When the meal is served, be sure that all is in readiness before it is announced. Fill the glasses three-fourth full of iced water, but do not put ice in the glass.

Have the pitchers or water bottles filled about three-fourths full. It is awkward to lift a glass that is too full, and equally hard to pour from utensils filled to the brim.

In filling the glasses lift them from the table at the bottom of the glass, and after filling place them exactly where they were first placed. After the guests are seated, it is not permissible to lift a glass to refill it; neither is it good form to move it forward. Pour the water slowly and pause for a moment to let the drop on the nose of the pitcher or rim of the bottle fall into the glass. Place a napkin around the neck of the water bottle to catch any drop or have one ready to touch the nose of the pitcher between the fillings of each glass.

If food is being served in portions the dish is placed at the left of the person being served. The cup and saucer are placed to the right of the guest, with the handle of the cup parallel to the edge of the table and away from the guest. Beverages are removed from the right. Dishes are removed from the left of the person seated.

All foods that should be eaten hot should be served hot; all chilled foods should be served cold.

Order of Service

The hostess may be served first. This enables her to commence eating as soon as her first guests are served. If the food is a salad or other food which will not deteriorate by standing, she may if she

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**Table Service and Decoration*, Lilian Gunn.

chooses, wait for all to be served before commencing to eat, but she must never finish before her guests. If served first, she can notice if everything is all right with the food and use the correct utensil for that course.

However, if so desired, the guest of honor may be served first. All depends on the style of serving, the formality of the meal, and the rank of the guest. It is better to keep the same order of serving throughout the meal. This makes a much more perfect and uniform serving. If the hostess is served first, serve the person on her right next, and so on through the meal. If there are two waitresses, one may commence at the head of the table and the other at the foot, keeping always to the right in serving.

Passing the Serving Dish

Hold the serving dish firmly, at a convenient angle and low enough so that the guest may easily see what it contains.

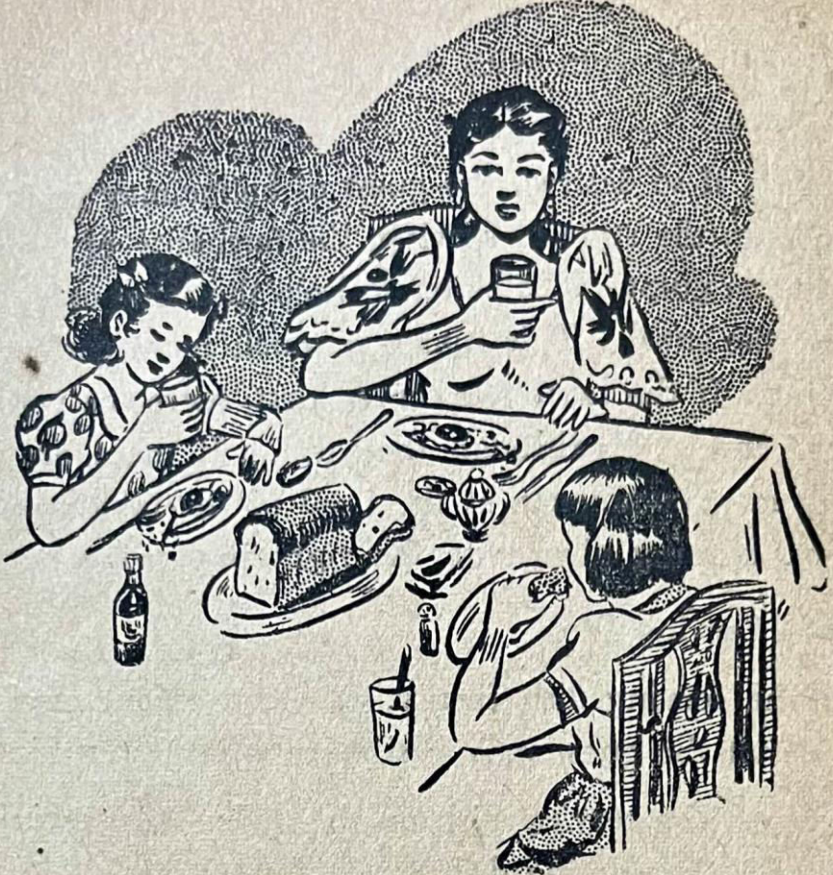
Never rest the serving dish on the table. (A serving spoon or fork goes with the serving dish.)

Placing, passing and clearing of all dishes at the left is perhaps less confusing for the average waitress.

The way which seems most practical and convenient for those served, is to place dishes which do not admit of choice with the right hand at the right of the guest. If this rule is followed, the guest knows that when a dish is presented at his left, there is something to do; otherwise he need not pay attention to the waitress. The dishes are also removed from the right in this form.

Removing the Dishes

In clearing, the following is the best order: Food first, followed by sorted china, glass, silver and cutlery.



1. If it is necessary to pull the chair out, use the right hand and sit down from the left side of the chair.

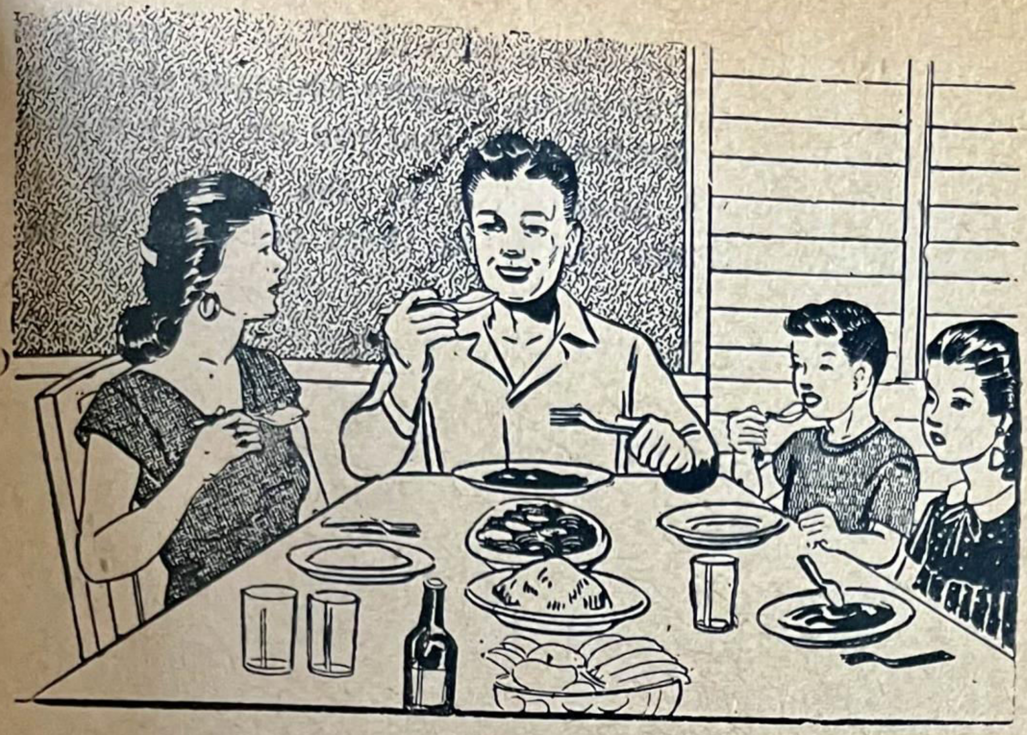
2. The napkin, which is taken from the left after all are seated, is unfolded to half of its full size if a large one, or entirely unfolded if of small luncheon size. A marker of some sort is necessary for napkins used by members of the family who fold their napkins when a meal is over. The guest leaves his napkin partially folded at one side of the plate, but not back in the original creases as though it were to be used again.

3. Soup should be sipped quietly from the side of the spoon. Dip the spoon away from you, never towards you. Eat quietly and without haste.

4. After food is served on individual plates, it is cut or divided into convenient-sized servings to eat, but only as it is needed. Break a small piece of bread and butter it as eaten.

5. Silver or dishes are not to be used as playthings or weapons.

6. The plate and saucers are meant as resting places for silver which has been used. After cutting food with your knife, either rest the entire knife on your plate (sharp blade towards you), transfer your fork from your left hand to your right and lift the bite



to your lips or keep the fork in your left hand and lift the bite to your lips. After using a teaspoon place it on a saucer or plate. Do not rest the handles of your knife, spoon or fork on the table.

7. The fork, a much-abused instrument, is intended only to convey food to the mouth and to aid in cutting and dividing the food. The fork is then held with the tines down and with the forefinger of the left hand extended along the back. To grasp it about the middle is unsightly and inconvenient. When correctly held, the handle will be well within the palm of the hand, tines down. When the fork is used in the right hand as for conveying, tines are up.

8. A knife is held in the right hand and only by the handle. In cutting meat use a steady cutting movement across the food, not a tearing motion managed with fork and knife together.

9. When taking bread from a plate use your fingers. Do not take bread from a plate with your fork.

10. It is not considered necessary to leave some food on the plate for politeness' sake. While it is in bad taste to clean up the plate painstakingly, yet it is equally poor taste to be fussy, to habitually leave food untouched or barely pick at the food served.

11. Seeds, small bones and other inedible parts of food may be removed with your hand inconspicuously.

12. There are a few foods that may be eaten from the fingers, such as bread.

13. Accidents are sure to occur occasionally at the best re-

gulated tables. Although spilling a glass of water or causing some other table accidents is embarrassing, lengthy apologies should never be made. To say quietly, but feelingly, that you are sorry is enough.

14. Conversation and pleasantness at the table are things which distinguish mealtimes and make them occasions to be remembered.

15. Never talk with food in your mouth.

STYLES OF TABLE SERVICE

English or Family Style

This is the most informal style of table service, where the meal is served with or without a maid. If served with a maid, the maid carries the platter of food served by the host or hostess to each corner; without maid service, the platters are passed from one person seated at the table to another.

Russian Style

In this formal style of service, all the food is divided into individual serving portions in the kitchen instead of in the dining room. The host and hostess take no part in the service. No food is put on the table except the decorating dishes of nuts, candy and fruits. The food may be placed in individual portions and served before the guests or may be separated into portions and arranged on serving dishes for each guest to help himself.

Compromise Style

This is a combination of the family or English and Russian styles. The first course is usually served when the meal is announced. The main course is usually served at the table, while the soup, salad and dessert are served from the kitchen. Sometimes, the salad is served from a large salad bowl, and the hostess serves the dessert at the table.

Buffet Style

An informal way of serving a meal to a relatively large number of persons in a limited space is called the buffet style. No waitress is needed. The two types of buffet service are:

1. Food, silver and napkins are arranged on a table, where the guests serve themselves.
2. One or two friends of the hostess assist in serving a dish usually from each end of the table. For example, one per-

son may serve a salad course or any dish and at the opposite end of the table another person may pour beverage, such as tea, or coffee or punch.

The buffet service may be made enjoyable if the hostess:

1. Serves food that can be eaten with a fork. Dishes that slide or tip are too precarious for use when one must hold his plate on his lap, hence knives and tall glasses are to be omitted.
2. Guests may seat and form an informal grouping to enjoy themselves. A rest table or a small table, on which the group may place their glasses is most appreciated.

Cafeteria-Buffet

A much more informal meal is the cafeteria-buffet. The guests take a tray each and serve themselves, frequently going to the kitchen for the main course. The dessert is served from a table in the dining room. An individual tray service is comfortable for the guest.

REVIEW

1. What courses should be included in planning a family dinner?
2. Discuss how to plan a good meal.
3. Define a "cover."
4. Demonstrate how to set a table.
5. Mention the points to remember when serving.
6. Make a comparison of the different styles of table service.

Unit VI

TEA PARTIES

The term "tea" means the serving of a cup of tea or other beverage and a few sandwiches, cakes or cookies, to a friend who drops for a call. This is called an informal tea. The casual tea is solely for the purpose of seeing one's friend and being seen by them, chatting, expressing hospitality in the simplest and most informal way. The tea is served in the living room, on the porch or on the lawn. Informal tea should never be served in the dining room. Generally, the foods are arranged on a tray and placed on a low table in the living room where the hostess pours. The food should be simple — dainty sandwiches and cake served with tea, coffee, punch or other beverages should be passed informally from hostess to guests. Filipino dishes may be served, such as bibingka, cuchinta, suman, etc.

If one wishes to honor someone or extend a courtesy to a selected number of guests, a formal tea is given. The refreshments are more elaborate than in an informal tea. The service is done in the dining room. Usually the buffet style is used. Both formal and informal teas are generaly held anytime between three and six o'clock in the afternoon.

SANDWICHES

Sandwiches for teas are made of bread cut very thinly. The bread is better if it is 24 hours old and cut in thin even slices. The crusts are removed. For dainty sandwiches, the slices are cut in two to form rectangles or triangles or cut into unusual shapes with a cookie or doughnut cutter. For economy, slice the fancy-shaped sandwiches lengthwise rather than crosswise. If the bread is not firm, very thin slices may be buttered before they are sliced. Cream the butter before spreading. If a filling is moist, such as tomatoes, butter both sides to prevent soaking. If a filling is drier, such as meat, butter one side only. Spread the butter and filling to the very edge, so that the first bite will taste of butter and filling as well as bread. The filling may be chopped or sliced. If the filling is ham or other meat, break the slices in several pieces so as to make the sandwiches easier to eat. To keep sandwiches from drying, cover them with wax paper or with a clean damp cloth.

Open-Faced Tea Sandwiches

Cut bread in 1/3 inch slices. Cut in various shapes, such as circles, diamonds, squares, rectangles, and triangles. Cream the butter and spread it on the bread. Spread thinly with various sandwich spreads, such as cheese and salad dressings, ground meat and salad dressing. Decorate with thinly sliced olives, pieces of pimento or slices of eggs.

Closed Tea Sandwiches

Cut bread in 1/3 inch slices. Remove the crusts. Butter one slice and spread the other thinly with sandwich filling. Put the slices together and cut in small fancy shapes — rectangles, triangles, squares. Sandwich spreads used in making open-faced sandwiches are satisfactory spreads.

Suggested Sandwich Fillings

1. Hard-boiled eggs, grated cheese, pickles (chopped) mixed with milk or mayonnaise.
2. Chopped hard-boiled eggs, pickles, pimento and mayonnaise.
3. Chopped meat mixed with salad dressing.
4. Chopped raisins with nuts and moistened with lemon juice.
5. Jam or jelly.

BEVERAGES FOR A TEA PARTY

Both iced and hot beverages are used for teas. An iced beverage should be thoroughly chilled when served, while a hot beverage should be piping hot. The following are suggested beverages suitable for teas:

Lemonade

3 1/2 cups cold water
2/3 cups sugar
2/3 cups lemon juice or other fruit juice

Make a syrup of the sugar and 1/3 of the water. Cool and add remaining water and fruit juice. Serve with generous amount of ice.

Fruit Punch

1 quart cold water or tea
1 No. II can shredded pineapple
2 cups sugar
1 cup lemon juice
1 pint juice of any fruit in season
1 quart water

Make a syrup of 1 quart water (or tea) and sugar. Cool and allow the rind of four lemons to stand in the syrup for several hours. Add lemon juice and fruit juices. Add iced water before serving. Serve in a punch bowl with a small block of ice.

Tea

Three important points should be remembered in making tea.

1. Buy good-quality tea and keep in a covered tea container.
2. Use a clean china or earthenware teapot.
3. Use fresh boiled water.
4. Let the tea remain in water for 1 to 3 minutes.

Tea may be served with lemon or cream. If lemon is used, cut into thin slices or in wedge-shaped pieces.

APPETIZERS

Appetizers served at a tea party should be fresh and crisp. Suggested appetizers which may be eaten from the fingers are thin strips of carrots; bars of sincamas — 1/2 cm. sq., 2 to 3 cm. long; strips of green pepper — 1 cm. wide, strips of long white radish and slices of cucumber.

REVIEW

1. How does a formal tea differ from an informal tea?
2. Describe how to prepare good sandwiches.
3. How can you make good tea?

Unit VII

FOOD PRESERVATION AND CANNING

The Filipino woman would be doing valuable service to the country by preserving native foods at home, for the following reasons:

1. Food preservation will improve the general health of the people by supplying a more varied and balanced diet.
2. It would prevent the waste of perishable foods by preserving them for future use.
3. It would stabilize prices by equalizing the food supply.
4. It would be a profitable way of spending one's leisure.
5. It would lessen the amount of imported canned goods which can be easily produced here.

PRINCIPAL METHODS USED IN FOOD PRESERVATION

1 Drying

Drying is the first known method of preserving foods. It needs little apparatus and is applicable to many kinds of food. The principle involved is the reduction of the water content in a food to such a degree as to prevent it from spoiling.

The general methods used in drying are:

a. By sunshine — Food is usually sliced and spread to dry under the heat of the sun.
b. By artificial heat — Food is dried by exposing it to hot air, as in the oven.
c. By air blast — Food is dried by means of a fan driven by electricity, alcohol or kerosene.

2. Smoking

This process of preserving is usually used with fish and meat. The material is first salted and exposed to smoke produced by slow-burning sawdust or shavings of one of the Philippine woods, like camachile, guava, or tamarind. The preserving chemical (creosote) present in the smoke prevents the growth of bacteria, aided by the drying which generally goes on at the same time.

3. Salting

This method is one of the first known and practiced here. It is used both with animal and vegetable foods. The salt draws out the water content of the food and enters the tissues, thus making the food firmer and preventing decay. The two most important methods of salting are:

a. Dry salting — The food is first mixed with salt to remove a large amount of its moisture and then dried.

b. Brining — The food is packed in a container and covered with a solution of salt (brine) until used.

4. Pickling

Pickling is applicable to foods that do not have much taste. Vinegar and condiments serve as preserving materials and give delicious flavor and odor to the food. Two methods of pickling generally used are:

a. Simple pickling — Food is prepared, salted and preserved with vinegar and other condiments. These ingredients give the food a better taste and preserve it. Sugar is added to the vinegar when sweet-sour pickle is desired.

b. Fermented pickling — This is accomplished by curing the food with salt and allowing the lactic acid fermentation to develop for a few weeks. The following spices are used in this method — vinegar, pepper, cinnamon, clove, allspice, nutmeg, celery seed, caraway, coriander, turmeric and bay leaves.

5. Sugar as a Preservative

Syrup in a concentrated form acts as a preservative and food products can be preserved either in dry sugar or in syrup which is made by dissolving the sugar in water. When fruits are preserved with much sugar, they are known as jelly, marmalade, jam, candy, or butter preserve according to their form and the method of preparation used.

6. Sterilization

Foods decay, spoil or ferment because of the growth in them of living microscopic organisms called germs. These are the molds, yeasts and bacteria. In canning, the killing or destruction of all the germs (sterilization) is essential. Molds and yeasts are killed below boiling point, but bacteria, due to their spores, are not completely killed unless the food is cooked for five hours or about an hour for three consecutive days. Since water and air and food contain germs, complete sterilization is necessary to assure the preservation of foods.

Canning is a method of heating the food and sealing it in an air-tight container. The preservation is effected because:

1. The heat destroys chemical agents (enzymes) in the food which are beneficial in causing fruits and vegetables to ripen and meat to become tender, but its continuous action causes over-ripening.
2. Canning destroys microscopic organisms which cause food to spoil.
3. Canning prevents organisms from getting into the food after it is heated.

Canning is a method that can be used with success with the widest variety of foods. The advantage of canning is that the food can keep long and is always ready for use.

The methods of canning are named according to the main piece of equipment used in the process.

1. Boiling water bath method
2. Open kettle method
3. Steamer or oven method
4. Pressure-canner method

The boiling water bath is used for fruits and vegetables to which a large amount of vinegar has been added. The pressure-canner method is used with other vegetables and meats. The oven and open-kettle methods do not give uniformly good results.

Guava Jelly

Wash and blanch mature but not ripe guavas; cut into small pieces and boil in a small quantity of water until soft; transfer to a muslin bag and let it drip; test for pectin and add the right amount of sugar (1 to 1); boil, skim, and determine "jelling" point;

filter, and fill jelly glasses. When cool pour melted paraffin and place the tin cover; label and store.

Mango Jam

Peel the ripe fruit; remove the seed; mash and to ten cups of the pulp, add 6 cups of sugar. Cook until thick and while boiling hot transfer to well sterilized jars and seal hermetically.

Pineapple Jam

Peel and remove eyes. Cut into small pieces and boil until soft with a very small amount of water. Pass through a food chopper and to ten cups of the pulp add 7 1/2 cups of sugar. Cook until thick and while hot transfer to well sterilized jars. Seal tightly.

REVIEW

1. How can a woman be of service to her country by preserving foods?
2. What methods are used in drying foods?
3. Discuss the various methods of preserving foods.
4. How does simple pickling differ from fermented pickling?

Unit VIII

VINEGAR-MAKING

Vinegar is dilute acetic acid, combined with some other acids and flavors of the fruit from which it is made. It may be made from any alcoholic fruit juice or other dilute alcoholic liquid or molasses or syrup.

VINEGAR-MAKING (Coconut Water)

Collect the water from several coconuts, strain through a piece of cheesecloth, then measure. Add 1 cup sugar for every 12 cups of coconut water; set aside for at least 1 month or until it is sour enough to be served. Place in a wide-mouthed container covered with cloth, in order to effect rapid vinegarification. Shredded coconut husk may also be put in the container to hasten vinegarification.

Pineapple Vinegar

—I—

100 kilos juice	5 kilos sugar

Overripe pineapples that may not be fit for the table may be saved for vinegar-making. Peel the pineapple and pass through a meat grinder or chop finely in a wooden bowl. Press the juice and measure. Add the corresponding amount of sugar and set aside for ten days. Then add good fresh vinegar.

—II—

Extract the juice of the pineapple and heat to between 60° to 70°C. Cool and add 1/4 cake yeast to every 15 to 20 liters of the juice. Set aside to ferment for 7 days or until no gas bubbles evolve. Measure fermented juice and add 1/4 the amount of fermented mother vinegar. Cover container with cheese cloth and set aside for a month.

Unit IX

EDUCATIONAL GUIDANCE

A high school student must have knowledge on how to select food for herself and for others. One must practice correct table manners, must know marketing and how to prepare and serve meals.

There are various opportunities of applying one's knowledge in the selection and preparation of food.

1. The choice of foods for oneself from those offered at the school lunch room.
2. The choice of a balanced meal for oneself from a restaurant menu.
3. The choice of a balanced meal for a friend or members of the family, or for company.
4. The preparation of some of the daily family meals.
5. The planning and preparation of some family meals.
6. The planning and preparation of a picnic lunch or camping or school lunch.
7. The planning and preparation of food for the school.

There are opportunities for girls to earn money by helping prepare or serve food in a restaurant, tea room, coffee shop, snack bar or small home shop.

SPECIAL QUALITIES NEEDED FOR SUCCESS IN ANY KIND OF FOOD SERVICE

1. Enough knowledge of food, nutrition and cookery
2. Possess good health — free from communicable diseases.
3. Personal qualifications, such as cleanliness, neatness, quickness, tactfulness, helpfulness, respectfulness.

APPENDIX

TERMS IN FOOD PREPARATION

Beat: to make a mixture smooth and introduce air by a brisk regular motion that lifts mixture over and over.

Blanch: to dip fruits or vegetables in hot water.

Blend: to mix two or more ingredients so that each loses its identity.

Chop: to cut up into small pieces with a knife.

Cream: to rub shortening and sugar with spoon against the sides of the bowl until creamy.

Cube: to cut in small cubes about 1/2 inch in size.

Dice: to cut in very small cubes about 1/4 inch in size.

Drain: to drip off excess moisture.

Garnish: to ornament with something bright and savory; something added for decoration.

Grate: to rub on a grater and produce particles as grated cheese.

Grind: to put through a food or meat chopper.

Marinate: to let food stand usually in French dressing until well seasoned.

Pare: to remove outer covering by cutting with a knife as with potatoes.

Peel: to pull of outer covering as with bananas or oranges.

Shred: to tear or cut in thin pieces or strips.

Sift: to put through a flour sifter or fine sieve.

Slice: to cut across a whole bread, meat or potatoes.

Strain: to filter big particles of food or foreign particles.

Toss: to lightly mix ingredients with two forks or a fork and a spoon.

TERMS IN COOKERY

Bake: to cook by indirect dry heat, usually in an oven.

Boil: to cook in boiling water.

Braise: to brown meat in small amount of fat and cook slowly in juice from meat or added liquid in a covered container.

Broil: to cook by direct heat from hot coals, or gas flame.

Fricassee: to cook meat by stewing in gravy.

Fry: to cook in a large amount of hot fat to cover the food.

Pan-broil: to cook in a hot uncovered frying pan, pouring off fat as it accumulates.

Parboil: to simmer for a short time preliminary to cooking by another method.

Pot roast: a piece of meat cooked by braising.

Saute or Pan-fry: to cook in a small amount of fat with frequent turning.

Sear: to brown the surface of meat by short application of intense heat.

Simmer: to cook below boiling point; bubbles occur below the surface of the liquid.

Stew: to cook with simmering heat.

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